

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method for performing a frequent itemset operation, the method comprising the steps of:

within a database server that supports a particular database language, parsing a database statement to detect within the database statement, a construct that extends the particular language,

wherein the construct identifies a function that counts and returns frequent itemsets given a cursor as input to the function;

wherein the cursor is used by the function to access values from rows that are returned from a SELECT statement;

wherein the function identifies said frequent itemsets based on said values from said rows returned by said SELECT statement;

performing said frequent itemset operation as part of execution of the database statement to produce results; and

storing the results in a computer-readable storage medium.

2. (Previously presented) The method of Claim 1, wherein the database statement is expressed in a particular database language, and wherein the particular database language is SQL.

3. (currently amended) The method of Claim 1, ~~wherein the construct is a table function;~~
and wherein;

the database statement specifies frequency criteria and additional criteria;~~wherein~~
said frequency criteria specifies at least one criterion that relates to how frequently

combinations of items appear together;~~and wherein~~

said additional criteria do not specify any criterion that relates to how frequently
combinations of items appear together;

the additional criteria specify at least one of (a) a minimum length, (b) a maximum
length, (c) a set of one or more included items; or (d) a set of one or more
excluded items; and

~~and wherein~~ the results include frequent itemsets that satisfy both said frequency criteria
and said additional criteria, and wherein the results do not include frequent
itemsets that satisfy said frequency criteria but do not satisfy said additional
criteria.

4. (Previously Presented) The method of Claim 1 wherein:

the database statement includes a first indication of a first input format;

the frequent itemset operation operates on input that conforms to said first input format;

and

the method further comprises the steps of:

parsing a second database statement to detect within the second database

statement a construct that extends a database language, wherein the second
database statement includes a second indication of a second input format
that is different from said first input format; and

in response to detection of said construct in said second database statement, the database server performing a second frequent itemset operation as part of execution of the second database statement, wherein the second frequent itemset operation operates on input that conforms to said second format.

5. (Original) The method of Claim 4 wherein the first indication is identification of a first table function and the second indication is identification of a second table function.
6. (Original) The method of Claim 1 wherein the frequent itemset operation uses, as input, a row source that is generated during execution of other operations specified in said database statement.
7. (Original) The method of Claim 1 wherein the frequent itemset operation produces, as output, a row source that is used as input for other operations specified in said database statement.
8. (Canceled)
9. (Previously Presented) The method of Claim 3 wherein:
the additional criteria specify a minimum length; and
the step of performing the frequent itemset operation includes performing a frequent itemset operation whose results exclude all item sets that include fewer items than the minimum length specified by the additional criteria.

10. (Previously Presented) The method of Claim 3 wherein:
the additional criteria specify a maximum length; and
the step of performing the frequent itemset operation includes performing a frequent
itemset operation whose results exclude all item sets that include more items than
the maximum length specified by the additional criteria.
11. (Previously Presented) The method of Claim 3 wherein:
the additional criteria specify a set of one or more included items; and
the step of performing the frequent itemset operation includes performing a frequent
itemset operation whose results exclude all itemsets that do not include all items
in said set of one or more included items.
12. (Original) The method of Claim 1 wherein the step of performing the frequent itemset
operation includes performing a frequent itemset operation whose results identify
frequent itemsets, and
for each of the frequent itemsets, a count of how many item groups included the frequent
itemset.
13. (Previously Presented) The method of Claim 1 wherein the step of performing the
frequent itemset operation includes performing a frequent itemset operation whose results
identify
frequent itemsets, and

for each of the frequent itemsets, a count of how many items are in the frequent itemset.

14. (Previously presented) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 1.
15. (Previously presented) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 2.
16. (Previously presented) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 3.
17. (Previously presented) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 4.
18. (Previously presented) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 5.

19. (Previously presented) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 6.
20. (Previously presented) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 7.
21. (Canceled)
22. (Previously presented) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 9.
23. (Previously presented) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 10.
24. (Previously presented) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 11.

25. (Previously presented) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 12.
26. (Previously presented) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 13.
27. (new) The method of Claim 1, wherein the construct is a table function.
28. (new) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 27.
29. (new) The method of Claim 3 wherein:
the additional criteria specify a set of one or more excluded items; and
the step of performing the frequent itemset operation includes performing a frequent
itemset operation whose results exclude all itemsets that include all items in said
set of one or more excluded items.
30. (new) A computer-readable storage medium carrying one or more sequences of instructions which, when executed by one or more processors, causes the one or more processors to perform the method recited in Claim 29.